

AMENDMENTS TO THE CLAIMS:

Please cancel claims 1-17 and 24-27.

1-17. (Canceled)

18. (Original) A structural connector comprising:

a plurality of support plates each having a plurality of fixed support members extending therethrough, the fixed support members extending outwardly from both sides of the support plates and comprising side walls and contoured tops;

a mating lug assembly comprising a plurality of mating lug plates and a plurality of mating lugs attached to each mating lug plate, each mating lug having a support notch therein;

wherein the support notch of each mating lug comprises tapered guide surfaces at the entry point of the support notch, side walls, and a contoured top.

19. (Original) The structural connector of claim 18 wherein the side walls of each fixed support member are substantially vertical.

20. (Original) The structural connector of claim 18 wherein the side walls of the support notches of the mating lugs are substantially vertical.

21. (Original) The structural connector of claim 18 wherein a vertical load on the structural connector is carried by the mating of the contoured tops of the support notches with the contoured tops of the fixed support members.

22. (Original) The structural connector of claim 18 wherein a horizontal load on the structural connector is carried by the mating of the side walls of the support notches of the mating lugs with the side walls of the fixed support members.

23. (Original) The structural connector of claim 18 wherein the structural connector is used to connect a unitized equipment floor of a drilling rig to the substructure of the drilling rig.

24-27. (Canceled)

28. (Original) A method of connecting components of a drilling rig comprising:
providing a first side box with a plurality of support plates attached thereto;
providing a second side box with a plurality of support plates attached thereto;

- providing each support plate of the first side box and the second side box with a plurality of fixed support members extending therethrough, each fixed support member comprising side walls and a contoured top;
- providing at least a portion of an equipment floor with a plurality of mating lug assemblies attached thereto, each mating lug assembly comprising a plurality of mating lug plates and a plurality of mating lugs attached to each mating lug plate;
- providing each mating lug with a support notch, the support notch comprising tapered guide surfaces at the entry point of the support notch, side walls, and a contoured top;
- positioning the first side box and the second side box;
- positioning the equipment floor for connection to the first side box and the second side box by aligning the mating lugs of the mating lug assemblies with the fixed support members of the support plates;
- guiding the fixed support members into engagement with the support notches of the mating lugs using the tapered guide surfaces of the support notches.
29. (Original) The method of claim 28 further comprising assembling components of the equipment floor to form a unitized equipment floor.
30. (Original) The method of claim 28 further comprising providing the fixed support members with substantially vertical side walls.
31. (Original) The method of claim 28 further comprising welding the mating lugs to the mating lug plates.
32. (Original) The method of claim 28 further comprising cutting the shape of the support notches into the mating lug plates.
33. (Original) A method of connecting components of a drilling rig comprising:
- providing a first side box with a plurality of mating lug assemblies attached thereto, each mating lug assembly comprising a plurality of mating lug plates and a plurality of mating lugs attached to each mating lug plate;
- providing a second side box with a plurality of mating lug assemblies attached thereto, each mating lug assembly comprising a plurality of mating lug plates and a plurality of mating lugs attached to each mating lug plate;

providing each mating lug with a support notch, the support notch comprising tapered guide surfaces at the entry point of the support notch, side walls, and a contoured top;

providing at least a portion of an equipment floor with a plurality of support plates attached thereto, each support plate having a plurality of fixed support members extending therethrough, each fixed support member comprising side walls and a contoured top;

positioning the first side box and the second side box;

positioning the equipment floor for connection to the first side box and the second side box by aligning the mating lugs of the mating lug assemblies with the fixed support members of the support plates;

guiding the fixed support members into engagement with the support notches of the mating lugs using the tapered guide surfaces of the support notches.

34. (Original) The method of claim 33 further comprising assembling components of the equipment floor to form a unitized equipment floor.

35. (Original) The method of claim 33 further comprising providing the fixed support members with substantially vertical side walls.

36. (Original) The method of claim 33 further comprising welding the mating lugs to the mating lug plates.

37. (Original) The method of claim 33 further comprising cutting the shape of the support notches into the mating lug plates.